==========

Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2010; month=2; day=2; hr=15; min=15; sec=7; ms=608;]

==========

****

Reviewer Comments:

<160> 67

The number provided for numeric identifier <160> must match the total number of sequences in the file. There are 68 sequences in this sequence listing but, 67 is given as the total in numeric identifier <160>, “<160> 67 as shown in the above attachment.” Please make all necessary changes.

****

Validated By CRFValidator v 1.0.3

Application No: 10590844 Version No: 3.0

Input Set:

Output Set:

Started: 2010-01-20 13:29:25.217
Finished: 2010-01-20 13:29:27.182
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 965 ms
Total Warnings: 64
Total Errors: 1
No. of SeqIDs Defined: 67
Actual SeqID Count: 68

Error code		Error Description
W	213	Artificial or Unknown found in <213> in SEQ ID (4)
W	213	Artificial or Unknown found in <213> in SEQ ID (5)
W	213	Artificial or Unknown found in <213> in SEQ ID (6)
W	213	Artificial or Unknown found in <213> in SEQ ID (7)
W	213	Artificial or Unknown found in <213> in SEQ ID (8)
W	213	Artificial or Unknown found in <213> in SEQ ID (9)
W	213	Artificial or Unknown found in <213> in SEQ ID (10)
W	213	Artificial or Unknown found in <213> in SEQ ID (11)
W	213	Artificial or Unknown found in <213> in SEQ ID (12)
W	213	Artificial or Unknown found in <213> in SEQ ID (13)
W	213	Artificial or Unknown found in <213> in SEQ ID (14)
W	213	Artificial or Unknown found in <213> in SEQ ID (15)
W	213	Artificial or Unknown found in <213> in SEQ ID (16)
W	213	Artificial or Unknown found in <213> in SEQ ID (17)
W	213	Artificial or Unknown found in <213> in SEQ ID (18)
W	213	Artificial or Unknown found in <213> in SEQ ID (19)
W	213	Artificial or Unknown found in <213> in SEQ ID (20)
W	213	Artificial or Unknown found in <213> in SEQ ID (21)
W	213	Artificial or Unknown found in <213> in SEQ ID (22)
W	213	Artificial or Unknown found in <213> in SEQ ID (23)

Input Set:

Output Set:

Started: 2010-01-20 13:29:25.217
Finished: 2010-01-20 13:29:27.182
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 965 ms
Total Warnings: 64
Total Errors: 1
No. of SeqIDs Defined: 67
Actual SeqID Count: 68

Error code	Error Description
	This error has occured more than 20 times, will not be displayed
W 402	Undefined organism found in <213> in SEQ ID (68)
E 252	Calc# of Seq. differs from actual; 67 seqIds defined; count=68

SEQUENCE LISTING

<110> The Government of The United States of America as
Represented by the Secretary of the Department of Health and
Human Services, Centers for Disease Control and Prevention
Vanderbilt University
Hodge, Thomas W.
McDonald, Natalie J.
Rubin, Donald
Shaw, Michael W.
Sanchez, Anthony
Murray, James L.

<120> RAB9A, RAB11A, AND MODULATORS THEREOF RELATED TO INFECTIOUS
DISEASE

<130> 6395-68026-07

<140> 10590844
<141> 2006-08-24

<150> PCT/US2005/006396
<151> 2005-02-24

<150> US 60/547,328
<151> 2004-02-24

<150> PCT/US2003/037143
<151> 2003-11-18

<150> US 60/482,604
<151> 2003-06-25

<150> US 60/427,464
<151> 2002-11-18

<160> 67

<170> PatentIn version 3.5

<210> 1
<211> 838
<212> DNA
<213> Cercopithecus aethiops

<220>
<221> misc_feature
<222> (1)..(838)
<223> n is a, c, t, or g.

<400> 1
gggnaaccga gcggntaaca ttttcacaca gaaantcgga aagtaaagcc aatcttagag 60

gctgcaggag gtttgggggc agtatctgat tcagacgctg gctaacgttt cacgatcgcg 120

ttccctttt tcttccaact cggtaagtaa aaaggcaaga tgagaaattt acgtgctgaa 180

cttaataaat agttggtgga cgtattgcct ttttttttt ttttttggta agggatgaca 240

catctcgtga ctacagttct tttgaggaat aacttttctg ctagtttcca aatcggcacg 300

tgaccaaagt cttttcatag gattttagcg tcctgataaa aatcaatggg cagaatttga 360

ttgcttttta aaaaatgtgt ttgtcctttg gtctctggca ccattgtaat ggaaaatccc 420

tacattgcct gtactctcag aagctgtcca gtggagcaaa actagagata aagaaacctg 480

gaacgattca gttaggaact tttaagaagc cagcctttag tttttccttt agaagattat 540

gcagttatca tgattgcttc tctagaactt cagtgtgtta tttggattcc taaatctaag 600

acaatgctgn ggaagtctgg ggcttttagn attttngggt ctgctgnaga aaatcctcgt 660

ttatactaca aagtttctnt tttggaactt tnggaattgg gcatttttn nnttattatt 720

ngnatgntng antnannggc aaaactnagn naacccttt nggtttgcct cnanccggtt 780

nttaaanaaa ngggaaaaan cctnanttta aantttttc caccctttt tnttttnt 838

<210> 2
<211> 820
<212> DNA
<213> Cercopithecus aethiops

<220>
<221> misc_feature
<222> (1)..(820)
<223> n is a, c, t, or g.

<400> 2
ttggganct agcttgccaa ntctacaggt ggggtctttc agtgggggc tgtcctgtag 60

gttatagaat gtttagcagc aaaaattaaa aattaaataa caaaaataaa aataaaaaag 120

aatgtttagc agcatccctg gcctctaccc actagatgtc agcagcacct cccttgcccc 180

caggtgtgaa ccaaaaatgc ctgcagacat tgccaaatat ctcctaggag gacaaaattg 240

tcctctcttc cacttgagaa ctattactct aaaattaccc agatctgctt tgaatccccg 300

ctccacccca tcacaacctg ggtcatcttg gaaaacagac tgaaccttcc tatgcccccc 360

gcaaattcct caactgtaac atggagctct tgctgaagaa atgctatgaa aattaaatga 420

aatgatgtac gtacaggatt tacacgcaca gaatattcac cgcgccagag tgagtgctca 480

ataaatggtc agaaatgagg ggaggctaaa aaaaaataat ttcgagaact caaaaatctt 540

atctttaggc ctccagagta ctgtagtcta gacagaagaa atggttgaga tagaancaaa 600

agagatgaga gaggttggaa aagaagtgat agaactaagg tattattccc cttatctctt 660

aagaacccgg cttggagtca aagccaatag agggtctact tagttttgnc tattactcta 720

ctttcaaata taacgaaaat tgcccaaacc caaagtntcc aaaaaaaact ttnnnttnan 780

cggggatttc tncncggncn aaaatctaan nccccnctnc 820

<210> 3
<211> 19
<212> DNA
<213> Homo sapiens

<400> 3
gggaagagtt cacttatga 19

<210> 4
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> a sequence considered complementary to SEQ ID NO: 3.

<400> 4
cccttcccaa gtgaatact 19

<210> 5
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> Rab9A siRNA

<400> 5
gggaagaguu cacuuauga 19

<210> 6
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> Rab9A siRNA

<400> 6
ggaaguggau ggacauuuu 19

<210> 7
<211> 19
<212> RNA

<213> Artificial sequence

<220>
<223> Rab9A siRNA

<400> 7
ucacaaagcu uccagaacu 19

<210> 8
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> Rab9A siRNA

<400> 8
guaacaagau ugacauaag 19

<210> 9
<211> 21
<212> RNA
<213> Artificial sequence

<220>
<223> Rab9A siRNA

<400> 9
aaguuugaua cccagcucuu c 21

<210> 10
<211> 18
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 10
tcctcattgc gcccagac 18

<210> 11
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 11
atcacagtgc caggctcatt acag 24

<210> 12
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic Fam-labeled oligonucleotide probe

<400> 12
tttcgtgtgg ccgcgagaca ctctt 25

<210> 13
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 13
catcttctca acaacccta 19

<210> 14
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 14
ccatctccaa ggagaatta 19

<210> 15
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic Fam-labeled oligonucleotide probe

<400> 15
caatggcagg aaaatcatca c 21

<210> 16
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> Rab11A siRNA

<400> 16

guaggugccu uauugguuu 19

<210> 17
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> Rab11A siRNA

<400> 17
gcaacaaugu gguuccuau 19

<210> 18
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> Rab11A siRNA

<400> 18
caagagcgau aucgagcua 19

<210> 19
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> Rab11A siRNA

<400> 19
ggaguagagu uugcaacaa 19

<210> 20
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> PIKfyve siRNA

<400> 20
ggaaauagcu auaauccua 19

<210> 21
<211> 19
<212> RNA
<213> Artificial sequence

<220>

<223> PIKfyve siRNA

<400> 21
gaacccagcu ccaucauug 19

<210> 22
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> PIKfyve siRNA

<400> 22
guagaaugcu ggccgauua 19

<210> 23
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> PIKfyve siRNA

<400> 23
ggaaaucucc ugcucgaaa 19

<210> 24
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> p40 siRNA

<400> 24
ccacagcugu ucauauuua 19

<210> 25
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> p40 siRNA

<400> 25
ggauucagcu gacaaagua 19

<210> 26
<211> 19
<212> RNA

<213> Artificial sequence

<220>
<223> p40 siRNA

<400> 26
gaaaccagcu auaugucuu 19

<210> 27
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> p40 siRNA

<400> 27
ggaaaucgaa auugucuac 19

<210> 28
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 siRNA

<400> 28
gcaaggcguu gaucagaag 19

<210> 29
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 siRNA

<400> 29
ggaacagagc uacuucgua 19

<210> 30
<211> 19
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 siRNA

<400> 30
uggaauaugu ggcccagaa 19

<210> 31
<211> 17
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 siRNA

<400> 31
gcuugugucg ucuaagg 17

<210> 32
<211> 21
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 siRNA

<400> 32
aacagagcua cuucguacgu c 21

<210> 33
<211> 17
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 33
attaacaatg gcaggaa 17

<210> 34
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 34
gtgtcccttc tcccaccaac taatga 26

<210> 35
<211> 16
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 35

gtaaaacgac ggccag 16

<210> 36
<211> 17
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 36
caggaaacag ctatgac 17

<210> 37
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 37
gcgatgtcta ggttaggaag aa 22

<210> 38
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 38
gctatgtcct tgggtagtaa gcct 24

<210> 39
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 39
gctctgagac aatgaacgct 20

<210> 40
<211> 21
<212> DNA
<213> Artificial sequence

<220>

<223> Synthetic oligonucleotide primer

<400> 40
aaagagataa tctggctgtg c 21

<210> 41
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 41
ggactttaag ggttacttgg gttgcc 26

<210> 42
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 42
cattttgatc atcatgtatg cttct 25

<210> 43
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 43
cagtacacct gccacaaagg a 21

<210> 44
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 44
gtgtgacctt ctctgcagac a 21

<210> 45
<211> 21
<212> DNA

<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 45
gacatggaga agatctggca c 21

<210> 46
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic oligonucleotide primer

<400> 46
tccagacgca ggatggcgtg a 21

<210> 47
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> Rab9A antisense RNA

<400> 47
gcaugguaac aaaaugucca uccacuucca aaucuuuauu 40

<210> 48
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> Rab9A antisense RNA

<400> 48
guuacuuaag uucuggaagc uuugugaauc aucgacacua 40

<210> 49
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> Rab11A antisense RNA

<400> 49
ggaugcuucu uguugcaaac ucuacuccaa uggugcucuu 40

<210> 50
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> Rab11A antisense RNA

<400> 50
gcugauguua uagcucgaua ucgcucuugc ccugcugugu 40

<210> 51
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> PIKfyve antisense RNA

<400> 51
ggcugaucua uuucgagcag gagauuuccc agcauccucu 40

<210> 52
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> PIKfyve antisense RNA

<400> 52
agcaaaagca augauggagc uggguuccuu cucgcagacu 40

<210> 53
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> p40 antisense RNA

<400> 53
auucaggacu uguagacaau uucgauuucc ugauugguug 40

<210> 54
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> p40 antisense RNA

<400> 54

uccgccccca aagacauaua gcugguuucc aauggcugcc 40

<210> 55
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 antisense RNA

<400> 55
ccgacaccuu agacgacaca agcuccuugg uguccgccag 40

<210> 56
<211> 40
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 antisense RNA

<400> 56
ggagcccaga cguacgaagu agcucuguuc cugccgcugc 40

<210> 57
<211> 46
<212> RNA
<213> Artificial sequence

<220>
<223> Rab9A ribozyme RNA

<400> 57
ggaaucgcac cucugaugag uccgugagga cgaaaccugc cguguc 46

<210> 58
<211> 46
<212> RNA
<213> Artificial sequence

<220>
<223> Rab9A ribozyme RNA

<400> 58
uugugaauca uccugaugag uccgugagga cgaaacacua aaagua 46

<210> 59
<211> 46
<212> RNA
<213> Artificial sequence

<220>

<223> Rab11A ribozyme RNA

<400> 59
cgaguaaauc gacugaugag uccgugagga cgaaacagga gauuac 46

<210> 60
<211> 46
<212> RNA
<213> Artificial sequence

<220>
<223> Rab11A ribozyme RNA

<400> 60
uuguugcuug gacugaugag uccgugagga cgaaacaugu cauuuu 46

<210> 61
<211> 46
<212> RNA
<213> Artificial sequence

<220>
<223> PIKfyve ribozyme RNA

<400> 61
gaucuaucca gucugaugag uccgugagga cgaaacaggu uaguaa 46

<210> 62
<211> 46
<212> RNA
<213> Artificial sequence

<220>
<223> PIKfyve ribozyme RNA

<400> 62
uuccuucucg cacugaugag uccgugagga cgaaacugca augggc 46

<210> 63
<211> 46
<212> RNA
<213> Artificial sequence

<220>
<223> p40 ribozyme RNA

<400> 63
ucaggacuug uacugaugag uccgugagga cgaaacaauu ucgauu 46

<210> 64
<211> 46
<212> RNA

<213> Artificial sequence

<220>
<223> p40 ribozyme RNA

<400> 64
uccgccccca aacugaugag uccgugagga cgaaacauau agcugg 46

<210> 65
<211> 46
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 ribozyme RNA

<400> 65
gacaccuuag accugaugag uccgugagga cgaaacacaa gcuccu 46

<210> 66
<211> 46
<212> RNA
<213> Artificial sequence

<220>
<223> TIP47 ribozyme RNA

<400> 66
acagggagcc cacugaugag uccgugagga cgaaacguac gaagua 46

<210> 67
<211> 606
<212> DNA
<213> Homo sapiens

<400> 67
atggcaggaa aatcatcact ttttaaagta attctccttg gagatggtgg agttgggaag 60

agttcactta tgaacagata tgtaactaat aagtttgata cccagctctt ccatacaata 120

ggtgtggaat ttttaaataa agatttggaa gtggatggac attttgttac catgcagatt 180

tgggacacgg caggtcagga gcgattccga agcctgagga caccatttta cagaggttct 240

gactgctgcc tgcttacttt tagtgtcgat gattcacaaa gcttccagaa cttaagtaac 300

tggaagaaag aattcatata ttatgcagat gtgaaagagc ctgagagctt tccttttgtg 360

attctgggta acaagattga cataagcgaa cggcaggtgt ctacagaaga agcccaagct 420

tggtgcaggg acaacggcga ctatccttat tttgaaacaa gtgcaaaaga tgccacaaat 480

gtggcagcag cctttgagga agcggttcga agagttcttg ctaccgagga taggtcagat 540

cacttgattc agacagacac agtcaatctt caccgaaagc ccaagcctag ctcatcttgc 600

tgttga 606

<210> 68
<211> 606
<212> DNA
<213> Cercopitheaus aethiops

<400> 68
atggcaggaa aatcatcact ttttaaagta attctccttg gagatggtgg agttgggaag 60

agttcactta tgaacagata tgtaactaat aagtttgata cccagctctt ccatacaata 120

ggtgtggaat ttttaaataa agatttggaa gtggatggac attttgttac catgcagatt 180

tgggacacgg caggtcagga gcgattccga agcctgagga cgccatttta cagaggttct 240

gactgctgcc tgcttacttt tagtgtcgat gattcacaaa gcttccagaa cttaagtaac 300

tggaagaaag aattcatata ttatgcagat gtgaaagagc ctgacagctt tccttttgtg 360

attctgggta acaagattga cataagcgaa cggcaggtgt ctacagaaga agcccaagct 420

tggtgcaggg ataacggcga ctatccttac tttgaaacga gtgcaaaaga tgccacaaat 480

gtggcagcag cctttgagga agccgttcga agagttcttg ctaccgagga taggtcagat 540

cacttgattc agacagacac agtcaatctt caccgaaagc ccaagcctag ctcatcttgc 600

tgttga 606